REMARKS

Claims 1-8, 21-36, and 47-57 are pending in the present application. In the final Office Action mailed July 2, 2003, the Examiner rejected claims 1-5, 21, 24-27, and 47-51 under 35 U.S.C. §102(b) as being anticipated by Caldwell (USP 3,915,136). The Examiner also rejected claims 6-8 under 35 U.S.C. §103(a) as being unpatentable over Caldwell. The Examiner further rejected claims 22-23 and 52-57 as being unpatentable over Breton (USP 6,382,014).

FINALITY OF ACTION

The finality of this action is believed to be inappropriate. First, the Office Action Summary does not properly set forth the disposition of the claims. That is, only claims 1-8 are stated as being rejected. Further, in the response to the non-final action dated January 13, 2003, Applicant requested a clarification of the rejections set forth by the Examiner. Specifically, the Examiner rejected claims 6-8 under 35 U.S.C. §103(a) as being unpatentable over Caldwell. In the rejection the Examiner recited elements of claim 22. In the current Office Action, the Examiner has again rejected claims 6-8 under 35 U.S.C. §103(a) as being unpatentable over Caldwell and again recited elements of claim 22. As such, it is unclear whether it is actually claims 6-8 or claim 22 that stand rejected under 35 U.S.C. §103(a) over Caldwell.

The Examiner has amended the first response to include the statement that claims 22-23 and 52-57 are unpatentable over Breton. Applicant is unclear, as stated in the first response, whether the Examiner has rejected claim 22 under 35 U.S.C. §103(a) as being unpatentable over Caldwell since elements of claim 22 appear in the rejection of claims 6-8 over Caldwell in addition to the rejection over Breton, or a combination thereof. Additionally, the Examiner has not specified the statutory basis for the rejection of claims 22-23 and 52-57 and as such the rejection is improper and does not afford Applicant the opportunity to respond to the rejection.

Additionally, there is no reference to claims 28-36 in any of the rejections set forth in the Office Action. As such, Applicant is uncertain of the status of these claims.

MPEP §706.07 states that "before final rejection is in order a clear issue should be developed between the Examiner and the applicant." Due to the lack of clarity related to the rejection of claims 22-23, 28-36, and 52-57, the issues are not at all clear and Applicant has not had an opportunity to respond to a properly set forth rejection.

As such, Applicant requests the finality of the pending Office Action be withdrawn as premature and that this issue be addressed in a non-final Office Action. Additionally, Applicant

requests that an action to this Response comply with the standards of completeness in accordance with MPEP §707.07 for purposes of appeal.

REJECTIONS

The Examiner rejected claims 1-5, 21, 24-27, and 47-51 under 35 U.S.C. §102(b) as being anticipated by Caldwell. In stating the rejection the Examiner has provided Applicant with one sentence that extends for three pages. The rejection is a verbatim recitation of the rejection stated in the Office Action of January 13, 2003. Accordingly, Applicant incorporates by reference herein the arguments set forth in the Amendment/Response filed April 14, 2003.

Additionally, claim 1 calls for, in part, a diaphragm positioned in a diaphragm housing and separating a first chamber configured to be in flow communication with an engine exhaust path and a second chamber configured to be in flow communication with an engine control unit.

In the response to Applicant's remarks presented on April 14, 2003, the Examiner stated that "the engine control unit is anything that is controlling a function of the engine i.e pressure regulator (26) is a controller besides that the phrase in flow communication with is very broad and everything in this embodiment of Caldwell is in flow communication with a engine control unit because everything in the embodiment is directly or indirectly functioning with (sic) the engine control unit." Applicant disagrees.

A person of ordinary skill in the engine arts would readily recognize those portions of Caldwell which are in flow communication with one another. Merely being connected does not support the conclusion that one element is in "flow communication" with another. Such is disclosed in Caldwell. Caldwell states:

> The EGR valve 14, which is schematically shown, comprises a housing 16 divided by a plate 17 into upper and lower chambers 20, 21. The upper chamber 20 is divided into upper and lower chamber portions 20a, 20b, by a flexible diaphragm 18. The lower chamber 21 has an inlet port 22 communicating with the exhaust manifold 15, and an outlet port 23 **communicating** with intake manifold. A valve member 24 is connected to the diaphragm 18 by a stem which extends through a conforming opening in the plate 17 and is moved by deflections of the diaphragm to close and open the port 22. A spring 25 normally urges the valve member 24 to close the port 22 when the vacuum pressure level in the upper chamber portion 20a is sufficient to raise the valve member 24 against the force of the spring 25. The lower chamber portion 20b is provided with a port 28 which vents the chamber portion 20b to atmospheric pressure. This permits the diaphragm 18 to flex in accordance with the vacuum level in the chamber 20a with respect to the plate 17.
> Col. 4, ln. 62 through Col. 5, ln. 15.

Referring to Fig. 1 of Caldwell, the Examiner stated that the diaphragm assembly comprises a diaphragm housing (16) and a diaphragm (18) positioned in the housing and separating a first chamber (20a) configured to be in flow communication with the engine exhaust path and a second chamber (20b) configured to be in flow communication with the engine control unit. Such is not disclosed in Caldwell. Applicant does not necessarily disagree that Caldwell discloses a diaphragm separating a first and a second chamber. Applicant does not however agree that Caldwell discloses that which is claimed.

The diaphragm housing (16) of Caldwell is divided into three chambers (20a, 20b, 21). Diaphragm 18 separates first chamber (20a) and second chamber (20b) while plate (17) separates second chamber (20b) from lower chamber (21). It is lower chamber (21) and not second chamber (20b) that is in flow communication with exhaust system (15). As Caldwell states, second chamber (20b), partially formed by diaphragm (18), is vented to atmosphere at port (28) whereas lower chamber (21), partially formed by plate (17), has an inlet port (22) **communicating** with the exhaust manifold (15), and an outlet port (23) **communicating** with intake manifold. The chamber of Caldwell that is in communication with the exhaust manifold is not formed by the diaphragm (18) but is formed by plate (17). Alternatively, second chamber (20b) formed by diaphragm (18) is not in communication with the exhaust manifold but is in communication with vent port (28).

Additionally, the Examiner's statement that -- the phrase "in flow communication with" is very broad and everything in this embodiment of Caldwell is in flow communication with an engine control unit because everything in the embodiment is directly or indirectly functioning with the engine control unit – is not supported by Caldwell. Caldwell states that the inlet port (22) communicates with the exhaust manifold (15) and the outlet port (23) communicates with the intake manifold. As such, Caldwell has identified which components are "in flow communication with" each other and consequently has acknowledged which components are not in flow communication with each other. As such, neither chamber formed by the diaphragm, 20a nor 20b, of Caldwell is in flow communication with the exhaust system. The Examiner has not cited any portion of the reference to sustain the rejection.

For at least the reasons stated above, that which is called for in claim 1 is not shown in Caldwell. Therefore, Applicant believes claims 1-8 are patentably distinct from that disclosed.

Claim 21 calls for, in part, coupling an of a diaphragm assembly to an electronic control unit of an engine. In rejecting the claim, the Examiner stated that Caldwell discloses coupling an outlet of the diaphragm assembly to an electronic control unit of an engine, citing for support Fig.

1 and Col. 5, lns. 1-18. Even assuming arguendo that the Examiner's conclusion that a person of ordinary skill in the art would interpret any device that controls any parameter of engine operation as an "engine control unit" to be true such is not the same as an electronic control unit of an engine. There is no support for the conclusion that the "control unit" of Caldwell is an electronic control unit. The system operates on a plurality of vacuum pressure lines interconnected to the intake of an engine. The "control unit" is mechanical, not electrical. The system operates as a function of the vacuum generated through the engine intake. Caldwell discloses "a pressure operated exhaust gas recirculation control valve in an internal combustion engine [is] operated by pressure from the intake manifold as controlled by a pressure regulator. The regulator responds to a pressure signal which varies as a function of the air intake flow rate into the engine." See Abstract. Simply, a vacuum pressure operated system is not an electronic control unit. One skilled in the art would readily acknowledge such a basic distinction.

Therefore, that which is called for in claim 21 is patentably distinct from that taught by Caldwell. As such, Applicant believes claims 21-23 are patentable thereover.

Claims 24 and 25 have been amended to further define the present invention. As amended, claim 24 calls for a diaphragm means configured to be coupled between an exhaust path of the engine and an ECU and for transmitting exhaust pulses to the ECU. As described above, Caldwell does not disclose use of an electronic control unit. The system of Caldwell is mechanical and not electrical. Additionally, the amendment does not require a new search or consideration since this limitation can be found in other claims.

Claim 25 has been amended to be consistent with the amendment to claim 24. Additionally, claim 25 has been amended to further define that the second chamber is in closed flow communication with the ECU. Therefore, claim 24, and those claims that depend therefrom, defines the present invention over Caldwell.

Claim 47 calls for, in part, a diaphragm positioned in a housing separating a first chamber configured to be in flow communication with an engine control unit and a second chamber configured to be in flow communication with an engine exhaust path. As discussed above, Caldwell fails to disclose a diaphragm assembly wherein a diaphragm separates a first chamber and a second chamber such that one of the chambers formed by the diaphragm is in flow communication with the engine exhaust path. As such, that which is called for in claim 47 defines the present invention over Caldwell.

The Examiner next rejected claims 6-8 under 35 U.S.C. §103(a) as being unpatentable over Caldwell. In the Response filed April 14, Applicant directed the Examiner's attention to the

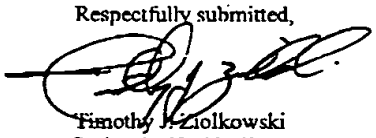
confusion created by the Examiner's recitation of elements not contained in the claims of the stated rejection. As a result, Applicant requested a non-final Office Action to clarify the issue. The Examiner has again rejected claims 6-8 under 35 U.S.C. §103(a) as being unpatentable over Caldwell and recited portions of claim 22. As stated above, Applicant has requested that the finality of this action be withdrawn and that any subsequent action be non-final in order to resolve this issue.

The Examiner next rejected claims 22-23 and 52-57 stating that "they are unpatentable over Breton (6382014)". The Examiner has failed to state a statutory basis for the rejection and has also included portions of the subject matter from claims 28-35 therein. As such, this Final Office Action is improper and must be withdrawn. Notwithstanding, claims 22-23 depend directly or indirectly from independent claim 21, claims 52-57 depend directly or indirectly from independent claim 47, and, if included in the rejection, claims 28-35 depend directly or indirectly from independent claim 24. As discussed above, claims 21, 24, and 47 are considered to be patentable over Caldwell. Therefore, claims 22-23, 28-35, and 52-55 are considered to be patentable based at least on the chain of dependency.

Therefore, in light of the foregoing, Applicant respectfully believes that the present application is in condition for allowance. As a result, Applicant respectfully requests timely issuance of a Notice of Allowance for claims 1-8, 21-36, and 47-57, or in lieu thereof, a non-final action correcting the deficiencies in the present action.

Applicant appreciates the Examiner's consideration of these Amendments and Remarks and cordially invites the Examiner to call the undersigned, should the Examiner consider any matters unresolved.

Respectfully submitted,



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